

Amendments to the Claims

1. (Currently Amended) A method of monitoring performance of a wireless system, comprising:

(a) transmitting a communication signal from a mobile wireless device to a radio base station, the communication signal comprising call data;

(b) obtaining uplink performance parameters associated with the communication signal;

(c) obtaining location information of the mobile wireless device by analyzing the communication signal; and

(d) evaluating the performance of the wireless system using the uplink performance parameters associated with the communication signal received from the mobile wireless device and the location information of the mobile wireless device.

2. (Original) The method of claim 1, wherein the step of evaluating the performance of the wireless system is performed in real-time.

3. (Previously Presented) The method of claim 1, wherein the location information of the mobile wireless device is collected from a plurality of radio base stations.

4. (Original) The method of claim 1, wherein the step of obtaining the location information involves analyzing timestamp data.

5. (Original) The method of claim 1, wherein the step of obtaining the location information involves using a time difference of arrival location processor.

6. (Previously Presented) The method of claim 5, wherein the time difference of arrival location processor is in the mobile wireless device.

7. (Original) The method of claim 5, wherein the time difference of arrival location processor is in the wireless system.

8. (Canceled)

9. (Currently Amended) The method of monitoring performance of a wireless system according to claim 8~~1~~, wherein obtaining location information of the mobile wireless device is accomplished using a global positioning system unit in the mobile wireless device.

10. (Currently Amended) The method of monitoring performance of a wireless system according to claim 8~~1~~, wherein obtaining location information of the mobile wireless device is accomplished using RF finger printing using dispersion characteristics of the communication signal.

11. (Currently Amended) A method of monitoring performance of a wireless system, comprising:

(a) transmitting ~~arespective~~ communication ~~signals~~signals from a plurality of mobile wireless devices to a radio base station, the communication signals comprising respective call data;

(b) obtaining uplink performance parameters associated with the communication signals;

(c) obtaining location information of the plurality of mobile wireless devices by analyzing the communication ~~signals~~signals; and

(d) evaluating the performance of the wireless system using the uplink performance parameters and the location information of each of the plurality of mobile wireless devices.

12. (Original) The method of claim 11, wherein the step of evaluating the performance of the wireless system is performed in real-time.

13. (Previously Presented) The method of claim 11, wherein the location information of the plurality of mobile wireless devices is collected from a plurality of radio base stations.

14. (Original) The method of claim 11, wherein the step of obtaining the location information involves analyzing timestamp data.

15. (Original) The method of claim 11, wherein the step of obtaining the location information involves using a time difference of arrival location processor.

16. (Previously Presented) The method of claim 15, wherein a time difference of arrival location processor is in each of the plurality of mobile wireless devices.

17. (Original) The method of claim 15, wherein the time difference of arrival location processor is in the wireless system.

18.-20. (Canceled)

21. (Currently Amended) A system for monitoring performance of a wireless system, said system comprising:

a plurality of wireless devices which transmit ~~communications~~ communication signals to a radio base station, the communication signals comprising respective call data and at least one uplink performance parameter;

a first receiver located at the radio base station which receives the communication signals and transmits the communication signals to a switch;

a second receiver located at the radio base station which monitors the communication signals and transmits timestamp data associated with the communication signals to the switch, the timestamp data being associated with respective locations of the wireless devices; and

a system analyzer coupled to the switch which evaluates the performance of the wireless system based on the respective uplink performance parameters and the ~~location~~respective locations of the wireless devices.

22. (Original) The system of claim 21, wherein a time difference of arrival location processor is coupled to the switch and to the system analyzer.

23. (Currently Amended) A system for monitoring performance of a wireless system, said system comprising:

a plurality of wireless devices which transmit communications signals to a radio base station, the communication signals comprising respective call data and at least one respective uplink performance parameter;

a first means for receiving the communication signals and transmitting the communication signals to a switch means;

a second means for monitoring the communication signals and transmitting timestamp data associated with the communication signals to the switch means, the timestamp data being associated with respective locations of the wireless devices; and

a system analyzer means, coupled to the switch means, which evaluates for evaluating the performance of the wireless system based on the respective uplink performance parameters and the respective ~~location~~ locations of the wireless devices.

24. (Currently Amended) A system for monitoring performance of a wireless system, the wireless system including a plurality of wireless devices transmitting communication signals to a radio base station, the communication signals comprising respective call data and at least one uplink performance parameter, said system comprising:

a first receiver located at the radio base station that receives the communication signals and transmits the communication signals to a switch;

a second receiver located at the radio base station which receives respective location information associated with each of the plurality of wireless devices, the location information being associated with the respective communication signals; and

a system analyzer coupled to the switch which evaluates the performance of the wireless system based on the at least one uplink performance parameters parameter and the respective ~~location~~ locations of the wireless devices.

25. (Original) The system of claim 24, wherein the second receiver receives location information using RF finger printing data associated with distortion characteristics of the communication signals.

26. (Original) The system of claim 24, wherein the second receiver receives location information from global position system units in each of the plurality of wireless devices.

27. (Currently Amended) A system for monitoring performance of a wireless system, the wireless system including a wireless device transmitting a communication signal to a radio base station, the communication signal comprising call data produced by the wireless device and including at least one uplink performance parameter, said system comprising:

a first receiver located at the radio base station that receives the communication signals and transmits the communication signals to a switch;

a location measurement unit in the wireless device that determines the location of the wireless device and includes corresponding location data in the communication signals; and

a system analyzer coupled to the switch which evaluates the performance of the wireless system based on the at least one uplink performance parameters parameter and the location of the wireless device.

28. (Original) The system of claim 27, wherein the location information measurement unit is associated with a time difference of arrival technique.

29. (Currently Amended) A system for monitoring performance of a wireless system, the wireless system including a wireless device transmitting a communication signal to a radio base station, the communication signal comprising call data, produced by the wireless device, and comprising uplink performance parameters, said system comprising:

a first receiver located at the radio base station that receives the communication signals with the uplink performance parameters, and transmits data associated with the uplink performance parameters to the wireless device;

a location measurement unit in the wireless device that determines the location of the wireless device; and

a system analyzer on the wireless device that evaluates the performance of the wireless system based on the uplink performance parameters and the location of the wireless device.

30. (Previously Presented) The method of claim 1, further comprising locating a geographical area associated with faulty coverage based on the performance evaluation.

31. (Previously Presented) The method of claim 1, wherein the evaluation is based on mobile-assisted handoff information.

32. (Previously Presented) The method of claim 1, further comprising generating an information report concerning signal coverage of a geographical area based on the performance evaluation.

33. (Previously Presented) The method of claim 1, further comprising adjusting the radio base station based on the performance evaluation.

34. (Previously Presented) The system for monitoring performance of a wireless system of claim 21, wherein the system analyzer is configured to indicate a geographical location associated with faulty coverage based on the performance evaluation.

35. (Previously Presented) A method of assessing wireless system performance, comprising:

- collecting downlink call data associated with a call to a mobile wireless device;
- collecting uplink call data associated with the call to the mobile wireless device;
- obtaining location information associated with the mobile wireless device; and
- based on the downlink call data, the uplink call data, and the location information, evaluating system performance.

36. (Previously Presented) The method of claim 35, further comprising removing transient effects from the system performance evaluation based on the uplink call data and the location information.